The Influence of Emotional Intelligence and Organizational Climate for Nurse Job Satisfaction

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Abstract

This paper examined the influence of emotional intelligence and organizational climate on job satisfaction. The model is examined through an empirical study involving 254 nurses from different teaching hospital using the structure equation modeling (SEM). The results provide that both nurses’ emotional intelligence and organizational climate and have a significantly positive influence on job satisfaction. The implications of these findings were discussed and suggestions for future research were advanced.

Keywords: Emotional intelligence, Organizational climate, Job satisfaction.

1. Introduction

Taiwan has implemented the National Health Insurance since 1995. There is more and more workload in the hospital, and hidden problems among it gradually appear and reveal as well. (such as: nurse's turnover · Shortage of the sick bed) However, the shortage and high turnover of nurse have been the global issue all the time. For a long time, nurses suffer from a variety of problems owing to the characteristics of their work and their contact with patients and death. For decades, the cyclic nature of nursing shortage and surplus has instigated research with the purpose of finding causes and remedies for solving the problems associated with high turnover and the impact this has on the quality of nursing care. While numerous factors have been linked to nurse's turnover, job satisfaction is the most frequently cited, and therefore merits attention. Understanding the determinants of nurses’ job satisfaction not only reduce nurse's turnover but also helps hospital practitioners make strategies to manage hospitals. Past research focused on the stress, pay, professional status, organizational policies, interaction, and working time, but paid little attention to the influence of emotional intelligence and organizational climate towards the job satisfaction.

Prior research ever discussed the influence of emotional intelligence and organizational climate on job satisfaction in different context. For example, Abraham, based on her own earlier observation that optimistic insurance salesmen would perform better than pessimistic salesmen, proposed that EI is directly related to performance.

According to the manager's empirical analysis, George and Goleman found that manager's EI has significant influence on his outcome of work. College freshmen with optimistic coping styles were shown to have higher grade point averages than those with pessimistic styles (Peterson and Bennett 1987). On the other hand, Brady has demonstrated that an understanding of the relationship of organizational climate to job satisfaction has become vital to facilitating organizational development.

In this study, we propose a theoretical research framework to examine the impact of emotional intelligence and organizational climate on job satisfaction, as well as the effect of the interaction between nurse's emotional intelligence and organizational climate on job satisfaction from the perspective of nursing staff.

2. Conceptual development

EI has its roots in the concept of “social intelligence” that was first identified by Thorndike in 1920. Thorndike defined social intelligence as “the ability to understand and manage men and women, boys and girls—to act wisely in human relations.” Following Thorndike, Gardner (1993) included social intelligence as
one of the seven intelligence domains in his theory of multiple intelligences. According to Gardner, social intelligence is comprised of a person’s interpersonal and intrapersonal intelligences. Intrapersonal intelligence relates to one’s intelligence in dealing with oneself, and is the ability to “symbolize complex and highly differentiated sets of feelings.” In contrast, interpersonal intelligence relates to one’s intelligence in dealing with others and is the ability to “notice and make distinctions among other individuals and, in particular, among their moods, temperaments, motivations and intentions” (p. 239).

Mayer and Salovey (1990) were among the earliest to propose the name “emotional intelligence” to represent the ability of people to deal with their emotions. They defined emotional intelligence as “the subset of social intelligence that involves the ability to monitor one’s own and others’ feelings and emotions, to discriminate among them and to use this information to guide one’s thinking and actions” (p. 189). Recently, Goleman (1995) adopted Mayer and Salovey’s definition, and proposed that EI involves abilities that can be categorized as self-awareness, managing emotions, motivating oneself, empathy, and handling relationships. Mayer and Salovey’s definition includes four core abilities: Identifying Emotions, Using Emotions, Understanding Emotions, and Managing Emotions. Identifying Emotions is ability to identify accurately one’s own and others’ emotions and feelings, as well as ability to express these emotions. Identifying emotions is composed of specific skills, including: emotional awareness, which allows individuals to distinguish different emotions; expression of emotion, involving ability to effectively communicate how one feels; reading other people's emotions, which entails reading accurately other's emotions from facial expressions and other behavioral cues; and reading between the lines, which involves identifying when emotions have been portrayed inaccurately, such as when a person expresses one emotion but feels another.

Using Emotions involves enhancing the thinking process by using emotions to inform decisions. Using emotions is also composed of specific skills, including: paying attention which uses emotions to facilitate memory, decision making, planning, and problem solving; taking another's perspective, which involves both understanding others' points of view, but also being able to also experience the world as the other person sees it; thinking differently and using emotions to problem solve, both involve using feelings to shift the thinking process, for example, being able to engage a positive mood to motivate oneself to tackle a complex problem or dilemma.

Understanding Emotions is skill in comprehending complex emotions and how they operate in the social world. A foundation of understanding emotions involves possessing an accurate vocabulary of emotions and being able to distinguish among them. In addition, emotionally competent individuals understand the cause and effect relationships of emotions, such as knowing that the expression of anger could elicit specific reactions like fear or reciprocal anger depending on the circumstances. This allows prediction of others’ emotional reactions. In addition, understanding emotion includes the knowledge that different emotions can occur at the same time and the ability to differentiate them, as well as an understanding of the progression of emotions over time. Managing Emotions involves both self-awareness of the emotions one is experiencing, the ability to harness emotions for purposes of motivation or inspiration, the ability to control emotions so that the emotions do not overwhelm the individual or govern inappropriate or undesired actions, and integrating feelings and actions. This aspect of the Mayer and Salovey emotional intelligence model is consistent with the growing body of work on emotional regulation. Many different conceptualizations of organizational climate have been proposed over the past 30 years, as summarized in Schneider (1990) and Litwin and Stringer.

Our study sought to build on past research about organizational climate and so we adapted well-known measures of three climate dimensions: risk orientation, external orientation, and achievement orientation Nystrom. Next, we describe these three dimensions of organizational climate for the influence towards nurses’ job satisfaction. First, risk orientation means the sense of riskiness and challenge in the job and in the organization; is there an emphasis on taking calculated risks, or is playing it safe the best way to operate. Second, external orientation implies that the communication link between the adopting organization and their customers is perceived as vital to the future success of the organization. In terms of hospital, external orientation is very important because after the patient leaves the hospital, the hospital should pay attention to the patient's condition at any time. Lastly, achievement orientation can refer to an organization’s concern for excelling, called achievement orientation. The theory of achievement orientation is built around the notion of achievement relative to a standard of excellence. Given an expectation for higher achievement being communicated to organizational members, individuals within the organization will be more likely to meet those expectations (Rosenthal and Crain, 1963).

Job satisfaction describes how we feel about a job and is just one feature of job attitudes defined in the seminal work of Herzberg et al. (1959). Job satisfaction is often identified in terms of extrinsic (wages, work benefits, networks and bonuses) and intrinsic values or rewards. The study adopted Minnesota satisfaction questionnaire (MSQ) measured nurses job satisfaction, include Extrinsic values·Intrinsic values. Extrinsic values include tangible aspects such as wages, work benefits, networks and bonuses. Intrinsic values include status, a sense of achievement, the ability to interact with others, self-worth, self-esteem, accumulation of knowledge/skills and the ability to utilize and express creativity. These extrinsic and intrinsic values are often
the basis of measurement tools of the multidimensional construct of job satisfaction.

3. Research model and hypotheses

This study proposed the research model shown in Figure 1. It asserts that the job satisfaction is a function of: organizational climate and emotional intelligence, as well as illustrate of the interaction between Emotional intelligence and organizational climate. The following subsection elaborates on these relationships and the theoretical underpinning of these hypotheses.

3.1 Emotional intelligence

Several studies probe the emotional intelligence influence on job satisfaction. Abraham based on her own earlier observation that optimistic insurance salesmen would perform better than pessimistic salesmen, proposed that EI is directly related to performance. According to the manager's empirical analysis, George and Goleman found that manager's EI has significant influence on his outcome of work. Some recent work on first year psychology students at a Canadian university has shown that students who obtained high marks at the end of their first year scored significantly higher on EI than a comparison group who obtained poor grades and were at risk of dropping out. Therefore, it is hypothesized that:

Hypothesis 1: Emotional intelligence has a significant positive influence on job satisfaction.

3.2 Organizational climate

Friedlander and Margulies (1969) aimed at the study of 95 production workers about organizational climate and job satisfaction. The organizational climate is a significant determinant of individual job satisfaction was developed in this research (e.g., interpersonal relations, task involved self-realization and advancement). Moreover, Pritchard and Karasick (1973) found in managing research that organizational climate was more strongly related to employee's job satisfaction as well. Brady has demonstrated that an understanding of the relationship of organizational climate to job satisfaction has become vital to facilitating organizational development. Accordingly, the following hypotheses H2 were proposed:

Hypothesis 2: Organizational climate has a significant positive influence on job satisfaction.

4. Research method
This section discusses our research method and design. Section 4.1 described the questionnaire development. Then, we described the research subject, data collection method and data analysis method in section 4.2 and 4.3.

4.1 Questionnaire Development

The scale items for emotional intelligence were developed from the study of Law and Wong. The scale items for Organizational climate were developed from the study of Nystrom, Ramamurthy, and Wilson. Furthermore, items for job satisfaction were adapted from Weiss. Each item was measured on a five-point Likert-type scale ranging from “strongly disagree” to “strongly agree”. We performed a pre-test to validate the instrument. The pre-test involved ten respondents who have more than fifteen year experiences of Head Nurse. Respondents were asked to comment on the length of the instrument, the format, and wording of scales. Therefore, the instrument has confirmed the content validity.

4.2 Data collection

Empirical data were collected by conducting a field survey of hospital nurse staff in Taiwan. A total of 650 questionnaires were pencil and paper. Of the 260 questionnaires returned, six responses were incomplete. The remaining 254 valid and complete questionnaires were used for the quantitative analysis. It represented a useable response rate of 39%. The questionnaire collected socio-demographics data including gender, age, marital status, level of education, and work experience. The respondents were 94.1% female, of which 63.8% were single. Most (21%) were aged 20-25 years. Most had 1-3 years of work experience (26%). As for the level of education, most of the respondents were university graduates (53.5%).

4.3 Data analysis

This study was conducted using SPSS12.0 and AMOS 5.0 as analysis tool. The data analysis method involved descriptive statistic, confirmatory factor analysis and, Structural Equation Mode. Table 1 summarizes the descriptive statistics for variables included models. The proposed model was tested using the SEM; SEM was used to analyze causal models and estimate simultaneously a series of interrelated dependence relationships with confirmatory factor analysis.

<table>
<thead>
<tr>
<th>Table 1. Descriptive statistics for variables included models</th>
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<tbody>
<tr>
<td>Construct</td>
</tr>
<tr>
<td>------------------------------------</td>
</tr>
<tr>
<td>Emotional intelligence</td>
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<td></td>
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<tr>
<td></td>
</tr>
<tr>
<td>Organizational climate</td>
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<td></td>
</tr>
<tr>
<td>Job satisfaction</td>
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<td></td>
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</tbody>
</table>

Note: SEA: Self-emotion appraisal, ROE: Regulation of emotion, UOE: Use of emotion, OEA: Others’ emotion appraisal

5. Result

This study used the (Structural Equation Model, SEM) approach that used AMOS 5.0 as a data analysis tool. First, we examine the measurement model to measure convergent and discriminant validity. Then, we examine...
the structural model to investigate the strength and direction of the relationship among the theoretical constructs.

5.1 Convergent validity

Convergent validity indicates the extent to which the items of a scale that are theoretically related should correlate highly. In measurement model, if the composite reliability is higher than the item of a scale will correlate highly. Fornell suggests that composite reliability should exceed the acceptable value of 0.7. The average variance extracted refers to the degree of all variables variance which could explain degree by latent variable. The average variance extracted for all constructs exceed the threshold value of 0.5 recommended by Fornell and Larcker. Table 2 shows that all the measures fulfill the recommended levels, with the composite reliability ranges from 0.768 to 0.814 and average variance ranges from 0.526 to 0.624. Since the composite reliability and average variance extracted were above the recommend values, the scales of measuring these constructs were deemed to exhibit satisfactory convergent reliability.

<table>
<thead>
<tr>
<th>Construct</th>
<th>Dimension</th>
<th>Factor loading</th>
<th>Composite reliability (CR)</th>
<th>Average variance extracted (AVE)</th>
</tr>
</thead>
<tbody>
<tr>
<td>EI</td>
<td>SEA</td>
<td>0.77</td>
<td>0.8130</td>
<td>0.5296</td>
</tr>
<tr>
<td></td>
<td>ROE</td>
<td>0.87</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>UOE</td>
<td>0.72</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>OEA</td>
<td>0.50</td>
<td></td>
<td></td>
</tr>
<tr>
<td>OC</td>
<td>RO</td>
<td>0.82</td>
<td>0.8140</td>
<td>0.5959</td>
</tr>
<tr>
<td></td>
<td>EO</td>
<td>0.84</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>AO</td>
<td>0.64</td>
<td></td>
<td></td>
</tr>
<tr>
<td>JS</td>
<td>Intrinsic</td>
<td>0.80</td>
<td>0.7686</td>
<td>0.6242</td>
</tr>
<tr>
<td></td>
<td>Extrinsic</td>
<td>0.78</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>


5.2 Discriminant validity

Discriminant validity was assessed using a series of $\chi^2$ difference tests by constraining the correlation parameters between factors to 1.0. Each time only one correlation parameter was fixed. A significant $\chi^2$ difference between the constrained and unconstrained CFA model indicated discriminant validity between the constrained pair of constructs. Such $\chi^2$ differences were all above 4, demonstrating adequate discriminant validity for all scales.

5.3 The structural model

The fitness measure was recommended by Hairs et al. For model with good fit, the ratio of chi-square to the degree of freedom ($\chi^2/df$) should be less than 3.0 Hayduk, GFI and CFI should exceed 0.9 Bagozzi and Yi, AGFI should exceed 0.8 Scott, and RESEA should be less than 0.08. Bagozzi and Yi. As shown in Table 3 the value of $\chi^2/df$, AGFI, CFI and RMSEA all met the criteria, except for GFI which lower than commonly cited threshold. But as Doll et al argued, GFI ranging from 0.8 to 0.9 could be interpreted as reasonable fit, although score of 0.9 or higher is considered evidence of good fit. In sum, the overall results suggested that the research model provided an adequate fit to the data.
Table 3. Fit indices for the measurement

<table>
<thead>
<tr>
<th>Measures</th>
<th>Recommended criteria</th>
<th>Suggested by authors</th>
<th>Measurement model</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chi-square /df</td>
<td>&lt;3.0</td>
<td>Hayduk[14]</td>
<td>2.18</td>
</tr>
<tr>
<td>GFI</td>
<td>&gt;0.9</td>
<td>Scott[25]</td>
<td>0.956</td>
</tr>
<tr>
<td>AGFI</td>
<td>&gt;0.8</td>
<td>Scott[26]</td>
<td>0.921</td>
</tr>
<tr>
<td>CFI</td>
<td>&gt;0.9</td>
<td>Bagozzi and Yi[3]</td>
<td>0.963</td>
</tr>
<tr>
<td>RMESA</td>
<td>&lt;0.08</td>
<td>Bagozzi and Yi[3]</td>
<td>0.068</td>
</tr>
</tbody>
</table>

5.4 Test of the structural model

The structured equation model (SEM) was used to test the two hypotheses proposed in this study. The hypothetical model (see Fig.2) was depicted using visual tools provided by AMOS. Each indicator was connected to its theoretical construct in a reflective manner as well as linked accordingly to the hypothesis.

The research model presented earlier was tested using the structural equation model (SEM) approach. Overall, the goodness-of-fit of the structural model was comparable to that of the previous CFA model and provide evidence of adequate fit. The hypothesized paths from emotional intelligence ($\beta=0.63$, $p<0.000$) and organizational climate ($\beta=0.27$, $p<0.001$) were significant on job satisfaction. Therefore, Hypotheses 1, 2 were supported.

![Fig. 2. Standardized solution of SEM model](image-url)
6. Discussion

In our study, we aimed to analyze the influence of emotional intelligence and organizational climate on job satisfaction. We conducted a study in which 254 nurses from a teaching hospital. The proposed structural model provided a good fit to the data, and all path coefficients were significant. The present study was able to explain amount of variance in job satisfaction (14%).

First, the result of the study revealed that emotional intelligence has a significantly positive influence on job satisfaction ($\beta=0.26, p<0.001$). This result is consistent with the finding of George and Goleman that manager's emotional intelligence has a significant influence on his outcome of work. Thus, hospital managers should pay more attention to nurse’s emotional intelligence. Moreover, we suggest that the hospital practitioners should arrange for the nurses to participate in the course of emotional intelligence, in order to strengthen the ability of nurse emotional management. On the other hand, the organizational climate also has a significantly positive influence on job satisfaction ($\beta=0.27, p<0.001$). This is in complete agreement with the finding of Pritchard and Karasick that organizational climate was strongly related to employee's job satisfaction. Thus, hospital managers should cultivate the organizational climate to increase nurses' job satisfaction.

7. Conclusion

The objective of this paper has been to develop a model to explain nurses’ job satisfaction. The proposed model incorporates two factors, emotional intelligence and organizational climate, to provide a more comprehensive understanding of the job satisfaction. The results show that both emotional intelligence and organizational climate have positive influence on job satisfaction. There are some limitations of the present study. First, this study was focused on a teaching hospital; the findings cannot therefore be generalized to all hospital. Future research can be conducted on various hospitals. Second, the research was focused on self-report measurements. The adopted cross-sectional research design, as opposed to a longitudinal or experimental methodology, does not allow affirmative causal explanations. With our cross-sectional data, we only took a snapshot of this model. A stricter test of our argument, however, would be to use longitudinal study to evaluate this aspect. By using a longitudinal study in the future, we could investigate our research model in different time periods and make comparisons, thus providing more insights into the nurses’ job satisfaction. Third, we included nurses from different work environments but did not code the work unit they were working in. It may be of interest to see whether there were differences depending on the work environment (emergence, intensive care and ward). Fifth, most respondents were 20-25 years old (about 38.2%) in this empirical study. It reveals that the age distribution is not symmetric. Therefore, the results of the current empirical study might tend to model the young nurse rather than all. Future studies may be benefited from an exploration of a wider range of nurse at different age level. Future research could explore the different influence of age on emotional intelligence and organizational climate related job satisfaction with a more age diverse sample. Future studies should examine whether the results of this study hold true in other types of hospitals (for example: for-profit and private).

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情緒智能與組織氣氛對護士工作滿意度的影響

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摘要

本篇研究調查「情緒智能」與「組織氣氛」對「工作滿意度」的影響。首先，前測訪問 10 位護理長
對問卷內容有無語意上的異同，接著透過結構方程模型去檢驗 254 位來自不同教學醫院的護士。研究結
果顯示情緒智能與組織氣氛對工作滿意度有顯著正向的影響，而情緒智能比組織氣氛更有影響力，這似
乎意味著護理人員的情緒智能直接影響他們的工作滿意度，因此醫院的管理者，應該定期的安排情緒管
理的相關課程給醫院裡的護士，這些發現對未來的研究有更進一步的幫助。

關鍵字：情緒智能、組織氣氛、工作滿意度